



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO. |
|---|-------------|----------------------|--------------------------------|------------------|
| 09/994,247  | 11/26/2001  | Faramarz Sabouri     | 5543                           | 8289             |
| 7590 10/14/2003<br>Samuels, Gauthier & Stevens LLP<br>Suite 3300<br>225 Franklin Street<br>Boston, MA 02110 |             |                      | EXAMINER<br>NGUYEN, PATRICIA T |                  |
|   |             |                      | ART UNIT<br>2817               | PAPER NUMBER     |

DATE MAILED: 10/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                    |          |
|------------------------------|--------------------|----------|
| <b>Office Action Summary</b> | Application No.    |          |
|                              | 09/994,247         |          |
|                              | Applicant(s)       |          |
|                              | Examiner           | Art Unit |
|                              | Patricia T. Nguyen | 2817     |

*AK*

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 25 August 2003.

2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-14 and 16-21 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-14 and 16-20 is/are rejected.

7) ☒ Claim(s) 21 is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All   b) ☐ Some \*   c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Cromwell et al., U.S. Patent # 3,778,730.

The Figure of Cromwell discloses a circuit comprising: transistor amplifiers 28, 29 can be read as a plurality of amplifiers; input port at 41 can be read as a system input port; transformer windings 20, 21, 22 can be read as a plurality of primary transformer windings wherein transformer winding 20 can be read as a first primary transformer winding where the port having dot is the positive input port, transformer winding 21 can be read as a first primary transformer winding; transformer winding 24 can be read as a single secondary transformer winding; output port at 14, 15 can be read as a system output port; load 16 can be read as a load.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-14, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromwell et al., U.S. Patent # 3,778,730 in view of Hofer, U.S Patent # 4,614,914.

Regarding claims 2, 10, 12 and 16, the figure shows that the winding turns from each primary transformer winding is the same. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to design the turns ratio from each primary transformer winding to the secondary transformer winding is N:1 in order to have an optimum working condition for the circuit and to meet system requirements since this is a matter of design choice.

Regarding claims 3, 11, 13, although Cromwell et al. does not mention that the current provided by each amplifier or primary transformer winding is  $i_1 = i_2 / (mN)$ , it would have been obvious at the time the invention was made to a person having ordinary skill in the art to design the current provided by each amplifier to be  $i_1 = i_2 / (mN)$  in order to meet system requirements since this is a matter of design choice.

Regarding claim 4, although Cromwell et al. does not mention that winding turns from each primary transformer winding is N, the Figure clearly shows that and Hofer provides the teaching of the same N winding turns for each primary transformer (see spec. col. 6, lines 54, 55). Nor does it mention about mismatch in number of turns from each primary transformer winding in claims 5 and 8, but Hofer teaches that in Fig. 6 wherein windings 72, 78, 80 can be read as primary transformer windings. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to design the winding turns for each primary transformer winding to be the same or mismatched depending on the requirements of the system to obtain an optimum working condition for the circuit since this is a matter of design choice.

Regarding claim 9, see the Figure.

Regarding claims 14, 18, 19, although Cromwell et al. does not mention about the amplifiers are spatially distributed on the integrated circuit chip, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to design the amplifiers to be distributed on the integrated circuit chip to reduce circuit size and weight in order to meet system requirements since integrated amplifier circuit is well known in the art and this is a matter of design choice.

Regarding claim 20, although Cromwell et al. does not have differential input for the amplifiers, Hofer teaches that in Fig. 5. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use single or differential input amplifiers depending on the requirements of the system since this is a matter of design choice.

***Allowable Subject Matter***

Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents # 3,652,948 of Fierstien et al., # 3,652,947 of Hollingsworth contain some limitations of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia T. Nguyen whose telephone number is (703) 308-1927. The examiner can normally be reached on 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (703) 308-4909. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

PTN  
October 3, 2003

**PATRICIA NGUYEN  
PRIMARY EXAMINER**

*Patricia Nguyen*